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Notice of Allowability	Application No.	Applicant(s)	
	09/804,929	RESHEF ET AL.	
	Examiner	Art Unit	
	Duc C. Ho	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- 1. ☒ This communication is responsive to the amendment filed 02-16-06.
- 2. ☒ The allowed claim(s) is/are 3-6, 9-10, 13, 15-17, 19, 18, 21, 22, 24-28. Renumbered 1-19, respectively.
- 3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 - 1. ☐ Certified copies of the priority documents have been received.
 - 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- 4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 - 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
- 6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>11-15-06</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER 'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Tarek N. Fahmi on 11-15-06.

The application has been amended as follows:

In the claims:

Claim 3, delete "wherein" at lines 3, 5, and 8, respectively.

Claim 4, delete "wherein" at lines 3, and 5, respectively.

Claim 9, delete "wherein" at lines 3, 5, and 10, respectively.

Claim 10, delete "wherein" at lines 3, 5, and 10, respectively.

Claim 13, delete "wherein" at lines 5, and 6, respectively.

Claim 15, delete "wherein" at lines 2, 5, 6, and 8, respectively.

Claim 21, delete "wherein" at line 5.

Claim 22, delete "wherein" at lines 5, and 6, respectively.

Reason for Allowance

2. Regarding claim 3, the prior art fails to teach or suggest an ATM buffer system, comprising a configurable buffer circuit that further comprises first and second state

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machine to control the insert logic and the extract logic, respectively, in combination with other limitations.

Regarding claims 4-6, the prior art fails to teach or suggest an ATM buffer system comprising a plurality of comparator circuits coupled to the plurality of counter circuits, the plurality of comparator circuits compare a count from the plurality of counter circuits to first and second threshold values; and control circuitry coupled to the plurality of comparator circuits to selectively increment or decrement the count of the plurality of counter circuits, in combination with other limitations, as specified in the independent claim 4.

Regarding claim 9, the prior art fails to teach or suggest an ATM buffer system, comprising a CLP counter to count a number of non-priority ATM cells dropped from the buffer; and an overflow counter a number of ATM cells dropped from the buffer in response to an overflow condition, in combination with other limitations.

Regarding claim 10, the prior art fails to teach or suggest an ATM buffer system, comprising a first and second comparators to compare the count of the undefined bit rate (UBR) counter to a UBR cell loss priority (CLP) threshold value and a UBR overflow threshold, respectively; third and fourth comparators to compare the count of the constant bit rate (CBR) counter to a CBR cell loss priority (CLP) threshold value and a CBR overflow threshold, respectively; and fifth and sixth comparators to compare the count of the overflow counter to a buffer cell loss priority (CLP) threshold value and a buffer overflow threshold, respectively, in combination with other limitations.

Regarding claim 13, the prior art fails to teach or suggest a linked list buffer system, comprising a management system that includes a plurality of counter circuits having adjustable threshold values, the adjustable threshold values comprise an overflow threshold value and a cell loss priority threshold value, in combination with other limitations.

Regarding claim 15, the prior art fails to teach or suggest a linked list buffer system, comprising a management system that includes a plurality of counter circuits, the plurality of counter circuits comprises sixteen counters and comparator circuits, in combination with other limitations.

Regarding claims 16-19, the prior art fails to teach or suggest an ATM buffer system comprising a linked list monitor coupled to the buffer circuit and comprising a plurality of first counter circuits, a plurality of comparator circuits coupled to the plurality of first counter circuits, the plurality of comparator circuits compare a count from the plurality of first counter circuits to first and second threshold values, and control circuitry coupled to the plurality of comparator circuits to selectively increment or decrement the count of the plurality of first counter circuits, in combination with other limitations, as specified in the independent claim 16.

Regarding claim 21 the prior art fails to teach or suggest a method of operating an ATM buffer comprising the steps of monitoring the plurality of linked lists using the ATM cell length thresholds, and the ATM cell length thresholds comprise an overflow threshold value equal to a maximum length of the plurality of linked lists, and a cell loss

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priority threshold value that is less than the overflow threshold value, in combination with other limitations.

Regarding claim 22, the prior art fails to teach or suggest a method of operating an ATM buffer comprising the steps of monitoring the plurality of linked lists using the ATM cell length thresholds, the monitor circuit comprises a plurality of selectable counter circuits and comparator circuits, during operation the comparator circuits receive the ATM cell length thresholds and compare the ATM cell length thresholds to a count in the counter circuits, in combination with other limitations.

Regarding claims 24-28, the prior art fails to teach or suggest a method of operating an ATM buffer system comprising the steps of determining if the count value exceeds the linked list length overflow threshold value, comparing the count value to a linked list length overflow threshold value, and determining if the count value exceeds the linked list length priority threshold value, in combination with other limitations, as specified in the independent claim 24.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147. The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

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If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (571) 272-3134.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

5. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner



Duc Ho

11-15-06